

Jalpa Deepak Patel

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SUMMARY

- Innovative AI researcher and developer at the University of Windsor and previously with WinAIML
- Developed REST APIs for Customer and CRM applications, which impacted business growth by 10%
- Experienced in designing mobile applications and Web Applications by performing system design analysis
- Designed features like mobile payment and route optimization following MVC architecture
- Skilled in data modelling and visualization to implement ML models and deploy on AWS and Google Cloud

EDUCATION

Master of Science in Computer Science, Co-op

UNIVERSITY OF WINDSOR

Windsor, ON | June 2022

Bachelor of Technology in Computer Science Engineering

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

India | June 2018

SKILLS

Languages : Python, Java, C, PHP, C#, R, Bash, SQL, MATLAB, SAP ABAP

Web Development : AngularJS, NextJS, JavaScript, HTML/CSS, TailWind, Bootstrap

Frameworks : Spring, Maven, pyTorch, TensorFlow, Keras

Database : MySQL, MongoDB, Firebase, Oracle, Microsoft SQL Server, SAP HANA

Technology : Git, Node.js, AI, Linux, NLP, AWS, Kubernetes, Docker, REST API, Android, IoT, Cordova

WORK EXPERIENCE

Graduate Assistant and Tutor | UNIVERSITY OF WINDSOR

Windsor, ON | Jan 2020 - Present

- Lead assistant for **Relational Database, Advanced Systems Programming, Computer Architecture** and **Theoretical Foundations of Computer Science**
- Tutored Design and Analysis of Algorithms course for concepts of **Dynamic Programming, Graph Algorithms, Searching** and **Sorting and Complexity Analysis**
- Instructed in writing optimal code to address **problem-solving, time and space complexity**
- Automated the task of loading the student submissions on local machine using **Python** scripts

IT/Software Developer- Coop | GROUND EFFECTS LTD.

Windsor, ON | May 2020 - Aug 2020

- Reduced web page loading time by 20% by **optimizing data loading and management** from **MySQL Relational Database**
- **Optimized MySQL database queries**, stored procedures, and the efficiency of **SQL Server Reporting Services**
- Worked on report customizations and writing custom multi-select dropdown driver using **Node.js**

Software Engineer | IESOFT TECHNOLOGIES PVT. LTD.

India | May 2018 – Jul 2019

- Handled customers, orders, and inventory data on a scalable database system on different servers
- Implemented agent **route tracking system**, which accelerated business growth by 15
- Simplified the use of CRM System by developing **elastic search** and CRON job **APIs**

Intern (Software Developer) | TECHNOLEXIS PVT. LTD.

India | Jan 2018 – May 2019

- Worked on photogrammetry and IoT project to create a 3D Body Scanner
- Programmed to save the results from the sensors and hardware devices to meet the project requirement
- Achieved the target of creating a 3D printed model from photos by **programming sockets** and using **Python**

VOLUNTEER EXPERIENCE

Open-Source Developer | PATHWAYS EDUCATION

Toronto, ON | Aug 2021 - Dec 2021

- Worked on developing a platform for **Open-Source** developers to contribute
- Conducted relevant **market-scan** and checked the relevant **software development guidelines**

Machine Learning Researcher | WINAIML

Toronto, ON | Mar 2020 - Sep 2020

- Worked on **Machine Learning** tasks involving **Exploratory Data Analysis(EDA)** and **NLP**
- Contributed by preparing and maintaining **datasets** for the research project
- Developed baseline Machine Learning Models to compare with the proposed research model and documented the findings

PROJECTS

Revenue Forecast Prediction Using Graphs and Deep Learning

TIME SERIES, SENTIMENT ANALYSIS

- Implemented bi-directional LSTM model for revenue prediction before release of movie
- Generated Graph embedding to consider social connections of actors. Performed sentiment analysis on movie plots

Resource Allocation Optimization using RL

PYTHON, REINFORCEMENT LEARNING, BIG DATA

- Optimized the allocation of resources on cloud computing system using a reinforcement learning algorithm
- Reduced data loss during training of model to increase model efficiency using Python

Malware Prediction on various devices

PYTHON, DEEP LEARNING, AUTOENCODERS, EDA

- Classified malware-based applications using Autoencoders
- Increased the efficiency of Autoencoders algorithm by comparing it to different Deep Learning models

Social Media Content Analyst Tool

PYTHON, NLP, DATA ANALYSIS, SOCIAL NETWORK ANALYSIS

- Designed a system to identify reliable tweets on microblogging websites like Twitter
- Used Social Network Analysis to find groups of Informative Tweets and used State of Art models

Missionaries and Cannibal Problem

JAVA, AI, SEARCH ALGORITHMS

- Compared various AI search technique algorithms to solve the Missionaries and Cannibal Problem
- Analyzed time and space complexity for implemented algorithms using Object-Oriented concepts

Power Spy

JAVA, INTERNET OF THINGS (IoT), C#

- Designed IoT project to record electricity consumption trends to identify faulty appliances
- Developed a mobile application to view the results recorded from sensors

JASS - Android application

JAVA, ANDROID APPLICATION DEVELOPMENT

- Designed and developed a native Android Application that helps users to search songs by searching any phrase from the lyric of the song
- Developed the problem-solving application to include speech and text input from an offline music playlist s

ACHIEVEMENTS

Completed Technology Entrepreneurship Programm, Indian School of Business

Jun 2016 - Jun 2018

Published a technical paper related to Data Analysis and IoT in IRJET journal

Apr 2018

Completed SAP ABAP Course TAW10 & TAW12 modules

Aug 2016 - Feb 2017

Participated in an Accelerator for Product Development, JNTUH

Jul 2017 - May 2018

Organizer of coding events at Technical Association of CS, SMEC

Aug 2014 - Aug 2017